

CALIFORNIA DEPARTMENT OF CONSERVATION CALIFORNIA GEOLOGICAL SURVEY

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SPECIAL REPORT RELEASE **December 27, 2007**

SPECIAL REPORT 201

RADON POTENTIAL IN MONTEREY COUNTY

(2 PLATES, MAP SCALE 1:100,000) by Ronald K. Churchill, 2007

The Department of Conservation, California Geological survey (DOC/CGS) has completed a radon potential map and report for Monterey County, California. Zones in Monterey County where geologic conditions and available data suggest elevated indoor-radon levels will be more commonly encountered are indicated on this map. The map zones show high, moderate and low radon potential areas. Although the Monterey County Radon Potential Map zones show areas where elevated indoor-radon levels are expected to be more common, the map cannot be used to determine the indoor radon level of a building. All radon zones contain some indoor-radon measurements above, and some below, the U.S. EPA recommended action level of 4 picocuries per liter (pCi/l). The only way to determine the indoor radon level of a building is by testing the building for radon, irrespective of the radon zone it occurs within.

The radon map zones are based on indoor-radon measurements of 1,059 residences collected during a California Department of Health Services (now known as the Department of Public Health)-Radon Program survey during winter 2006, National Uranium Resource Evaluation (NURE) project airborne radiometric data and soil and sediment uranium data from the U.S. Geological Survey, the 2001 geologic map of Monterey County by Rosenberg, and Natural Resource Conservation Service soil maps. The radon zone mapping process involved comparing indoor radon data, radiometric data, and uranium data from sediment and soil samples with geologic units and soil units in Monterey County using a geographic information system (GIS). Units with higher percentages of indoor-radon data at or above 4 pCi/l were identified as high or moderate radon potential units. Geologic units with airborne radiometric data exceeding 7.5 ppm (parts per million) equivalent uranium or with soil and sediment data exceeding 5.0 ppm uranium were considered to have increased potential for associated elevated indoor-radon level buildings (radon is a radioactive decay product of uranium). The report accompanying the map provides detailed information about how the radon zones for Monterey County were developed and their significance.

Special Report 201 is available as a free download from the California Geological Survey Website or as a hard copy for:

> Price.....\$30.00 Shipping and handling.....\$ 8.00

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FOR MAIL ORDERS: California Geological Survey 1059 Vine Street, Suite 103 Sacramento, CA 95814-0321 FAX (916) 324-5644

FOR CREDIT CARD ORDERS:

Phone: (916) 445-6199 (916) 445-5716

Gary Taylor Senior Engineering Geologist

Sacramento Information Office, 801 K Street, 14th Floor, MS 14-34, Sacramento, CA 95814-3532, (916) 445-5716 Los Angeles Information Office, 888 Figueroa Street, Suite 475, Los Angeles, CA 90017, (213) 239-0878 Menlo Park Information Office, 345 Middlefield Road, MS 520, Menlo Park, CA 94025, (650) 688-6327